



INGV Broad Band Ocean Bottom Seismometers deployed in the Ionian Sea

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In May 2007, within the monitoring activities carried out in cooperation with the Italian National Civil Protection Department (DPC) and European NERIES project (activity NA6), INGV has deployed three Broad Band Ocean Bottom Seismometers in the southern Ionian Sea at 3500/4000 meters of depth. The OBS's are equipped with a Nanometrics Trillium 120p seismometer, a Cox-Webb Differential Pressure Gauge and a 21 bits SEND Geolon-MLS digitizer. The three OBS's, entirely developed at the Gibilmanna Geophysical Observatory of the INGV National Earthquake Center (CNT), are part of a pool of eight ready to deploy instruments and they are the first Italian OBS's taking part in a long term experiment: two of them will be recovered by February 2008, whereas the third, in the deep Ionian Sea, will be replaced every year, until May 2010, to accomplish the continuous long-term seismic monitoring task of the EU NERIES project. The area selected for the deployment is a region of high scientific interest for several reasons: i) there are no seismological data on the structure of the Ionian lithosphere; ii) the level and features of the seismicity of the area between the Hyblean-Malta fault system and the accretionary prism of the Calabrian Arc are unknown. This experiment allows us to test the pressure waves detection system that will be implemented in the Tsunami Warning System INGV is developing within the IOC-UNESCO "NEAMTWS" (North-East Atlantic, Mediterranean and connected seas Tsunami Warning System). In this poster we describe the technical features and the performance of the OBS's, the deployment campaign, and some seismic data recorded.